CLAIMS

1. A method of drying a coating film formed by application of a coating solution to a long-length substrate which is traveling,

drying being done immediately after the application of said coating solution to said long-length substrate, with an evaporation rate of a solvent kept at 0.1 $g/m^2 \cdot s$ or less.

2. The method of drying a coating film as set forth in claim 1, characterized in that said drying is done until said long-length substrate coated with said coating solution enters a drying system.

3. The method of drying a coating film as set forth in claim 1, characterized in that a plate parallel to said long-length substrate immediately after being coated with said coating solution is provided with an air gap between said plate and said coating film, and said drying is done during travel of said coating film through said gap.

4. The method of drying a coating film as set forth in claim 3, characterized in that a temperature of said plate is controlled to be not less than a dew point of vapors of said coating solution.

5. The method of drying a coating film as set forth in claim 3, characterized in that a fin is provided on a surface of said plate on a side facing said long-length substrate.

6. The method of drying a coating film as set forth in any one of claims 1 to 5,

characterized in that said coating film is formed as an optically functional layer with an optical function.

7. An optical film having a laminated structure comprising said optically functional layer formed by the method of drying a coating film as set forth in claim 6.

8. A polarizing plate having the optical film as set forth in claim 7.

9. An image display system comprising the polarizing plate as set forth in claim 8.

10. A method of drying a coating film formed by application of a coating solution to a long-length substrate which is traveling, characterized in that

a plate having a plate width of not less than a width of said long-length substrate is provided along a travel path of said long-length substrate on a downstream side of a coating system for said coating solution, and

said long-length substrate immediately after a coating film is formed thereon by said coating system travels along said travel path, with said coating film facing a plate surface of said plate with a predetermined gap, whereby at least pat of said coating film is dried while passing through said gap.

11. The method of drying a coating film as set forth in claim 10, characterized in that

said plate is provided as a first plate, and a second plate which is opposed with a predetermined space to a surface of said long-length substrate on a side opposite to the

side where said coating film is formed, is provided almost parallel to said first plate, and

a long-length substrate immediately after said coating film is formed thereon travels through an air gap between said first and second plates.

12. The method of drying a coating film as set forth in claim 10, characterized in that a plurality of convex structures, each extending in a direction nearly orthogonal to a direction of travel of said long-length substrate, are arranged approximately parallel to an underside of said plate along said direction of travel.

13. The method of drying a coating film as set forth in claim 10, characterized in that said plate is provided as one side of a flat tunnel structure which surrounds a travel path of said long-length substrate.

14. The method of drying a coating film as set forth in any one of claims 10 to 13, characterized in that a temperature of said plate is controlled to be not less than a dew point of vapors of said coating solution.